# 2014 Annual Drinking Water Quality Report
**For**
## Leicester Water Supply District
Leicester, Massachusetts
MASSDEP PWSID # 2051000

This report is a snapshot of drinking water quality that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to state and federal standards. We are committed to providing you with information because informed customers are our best allies.

## I. PUBLIC WATER SYSTEM INFORMATION

Address: P.O. Box 86, 124 Pine Street, Leicester, MA 01524

Contact Person: Roger Hammond, Superintendent

Telephone #: (508) 892-8484 Fax #: (508) 892-1812

Internet Address: http://www.lwsd.net/

**Water System Improvements**
Our water system is routinely inspected by the Massachusetts Department of Environmental Protection (MassDEP). MassDEP inspects our system for its technical, financial, and managerial capacity to provide safe drinking water to you. To ensure that we provide the highest quality of water available, your water system is operated by a Massachusetts certified operator who oversees the routine operations of our system. As part of our ongoing commitment to you, last year we made the following improvements to our system: We have begun chlorinating the complete distribution system year round. This has created a much more stable and clean water source for the District

**Opportunities for Public Participation**
If you would like to participate in discussions regarding your water quality, you may attend the following meetings or educational events: Normal Commissioner's Meetings are held the third Thursday of each month at 4 P.M. at 124 Pine Street. Our annual meeting is normally held the last Tuesday of April each year.

## 2. YOUR DRINKING WATER SOURCE

**Where Does My Drinking Water Come From?**
*Your water is provided by the following sources listed below:*
The Leicester Water Supply district is a Municipal Water System that provides water to about 3,300 residents in the central area of Leicester. The water we distribute is groundwater that is pumped from the aquifer's in the bedrock. The sources include two area; a well field in the Town of Paxton (Source Id # 01G, 02G, 03G, and O4G) and two wells in Leicester, the Whittemore Street well (05G) and the Rawson Street well(06G). The Whittemore Street well is currently out of service until treatment for arsenic and uranium can be provided. Two Water tanks (600,000 gallon each), located just north off Route 56 near the Leicester High School and Leicester Primary schools, provide storage and deliver water through our distribution system to your homes and businesses.

| Source Name | MassDEP Source ID# | Source Type | Location of Source |
|---|---|---|---|
| 01G | 2151000-01G | Groundwater | Paxton well field |
| 02G | 2151000-02G | Groundwater | Paxton well field |
| 03G | 2151000-03G | Groundwater | Paxton well field |
| 04G | 2151000-04G | Groundwater | Paxton well field |
| 05G | 2151000-05G | Groundwater | Whittemore Street |
| 06G | 2151000-06G | Groundwater | Rawson Street |
| 07G | 2151000-07G | Groundwater | Paxton well field |

**Is My Water Treated?**
Our water system makes every effort to provide you with safe and pure drinking water. To improve the quality of the water delivered to you, we treat it to remove several contaminants.

- *We add a disinfectant to protect you against microbial contaminants.*
- *We chemically treat the water to reduce lead and copper concentrations.*
- *We aerate the water to reduce radon concentrations.(Well #06G)*
- *We chemically treat the water to reduce levels of iron and manganese.*
- *We filter the water to remove uranium and other naturally occurring radionuclides.(Wells 02G, 03G + 06G)*
- *We filter the water to remove arsenic. (Wells 02G, 03G + 06G)*

The water quality of our system is constantly monitored by us and MassDEP to determine the effectiveness of existing water treatment and to determine if any additional treatment is required.

Our water system makes every effort to provide you with safe and pure drinking water. The water quality of our system is constantly monitored by us and MassDEP to determine if any treatment may be required.
Prior water quality test results show that the water needs to be treated to continue to meet these goals. To improve the quality of the water, our system is working on the installation of treatment to arsenic and uranium in Well #05G (Whittemore Street). We expect this treatment to be on-line and operational by November 2016.

**How Are These Sources Protected?**
MassDEP has prepared a Source Water Assessment Program (SWAP) Report for the water supply source(s) serving this water system. The SWAP Report assesses the susceptibility of public water supplies.

**What is My System's Ranking?**
A susceptibility ranking of Moderate was assigned to this system using the information collected during the assessment by MassDEP.

**Where Can I See The SWAP Report?**

The complete SWAP report is available at *our office located at 124 Pine Street, Leicester, MA during regular business hours* and online at *http://www.mass.gov/dep/water/drinking/sourcewa.htm#reports* . For more information, call *Roger A. Hammond at (508) 892-8484*.

**What Can Be Done To Improve Protection?**
Residents can help protect sources by:

- Practicing good septic system maintenance
- Supporting water supply protection initiatives at the next town and/or annual district meeting
- Taking hazardous household chemicals to hazardous materials collection days
- Contacting the water department or Board of Health to volunteer for monitoring or education outreach to schools
- Limiting pesticide and fertilizer use, etc.

## 3. SUBSTANCES FOUND IN TAP WATER

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals, and in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

**Microbial contaminants** -such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**Inorganic contaminants** -such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, and farming.

**Pesticides and herbicides** -which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

**Organic chemical contaminants** -including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

**Radioactive contaminants** -which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the Department of Environmental Protection (MassDEP) and U.S. Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and Massachusetts Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and some infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on lowering the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Leicester Water Supply District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

## 4. IMPORTANT DEFINITIONS

**Maximum Contaminant Level (MCL)** – The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal (MCLG)** –The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL) --** The highest level of a disinfectant (chlorine, chloramines, chlorine dioxide) allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG)** -- The level of a drinking water disinfectant (chlorine, chloramines, chlorine dioxide) below which there is no known of expected risk to health.
MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Treatment Technique (TT)** – A required process intended to reduce the level of a contaminant in drinking water.

**Action Level (AL)** – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**90$^{th}$ Percentile** – Out of every 10 homes sampled, 9 were at or below this level.

**Variances and Exemptions** – State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

ppm = parts per million, or milligrams per liter (mg/l)
ppb = parts per billion, or micrograms per liter (ug/l)
ppt = parts per trillion, or nanograms per liter
pCi/l = picocuries per liter (a measure of radioactivity)
NTU = Nephelometric Turbidity Units
ND = Not Detected
N/A = Not Applicable
mrem/year = millimrems per year (a measure of radiation absorbed by the body)

**Secondary Maximum Contaminant Level (SMCL)** – These standards are developed to protect the aesthetic qualities of drinking water and are not health based.

**Massachusetts Office of Research and Standards Guideline (ORSG)** – This is the concentration of a chemical in drinking water, at or below which, adverse health effects are unlikely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.

## 5. WATER QUALITY TESTING RESULTS

**What Does This Data Represent?**
The water quality information presented in the table(s) is from the most recent round of testing done in accordance with the regulations. All data shown was collected during the last calendar year unless otherwise noted in the table(s).

| | Date(s) Collected | $90^{TH}$ percentile | Action Level | MCLG | # of sites sampled | # of sites above Action Level | Possible Source of Contamination |
|---|---|---|---|---|---|---|---|
| Lead (ppb) | 11/14/2013 | .0017 | 15 | 0 | **11** | **1** | Corrosion of household plumbing systems; Erosion of natural deposits |
| Copper (ppm) | 11/14/2013 | 0.20 | 1.3 | 1.3 | **11** | **0** | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |

"If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Leicester Water Supply District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead."

| | Highest # Positive in a month | MCL | MCLG | Violation (Y/N) | Possible Source of Contamination |
|---|---|---|---|---|---|
| Total Coliform | 3 | 1 | 0 | N | Naturally present in the environment |
| Fecal Coliform or *E.coli* | 0 | * | 0 | N | Human and animal fecal waste |

* Compliance with the Fecal Coliform/E.coli MCL is determined upon additional repeat testing.

| Regulated Contaminant | Date(s) Collected | Highest Result or Highest Running Average Detected | Range Detected | MCL or MRDL | MCLG or MRDLG | Violation (Y/N) | Possible Source(s) of Contamination |
|---|---|---|---|---|---|---|---|
| **Inorganic Contaminants** | | | | | | | |
| Antimony (ppb) | 6/14/2011 | ND | | 6 | 6 | | Discharge from fire retardants; ceramics; electronics; solder |
| **Rock Well #2 (02G)** | | | | | | | |
| Arsenic (ppb) | 2/11/14<br>4/9/14<br>10/10/13 | ND | | 10 | ----- | | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes |
| **Rock Well #3 (03G)** | | | | | | | |
| Arsenic (ppb) | 2/11/14<br>4/9/14<br>11/10/13 | ND | | 10 | ----- | | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes |
| **Rock Well #5 (06G)** | | | | | | | |
| Arsenic (ppb) | 2/11/14<br>4/9/14<br>10/10/13 | ND | | 10 | ----- | | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes |
| Barium (ppm) | 4/9/2014 | 0.064 | | 2 | 2 | | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits |
| Beryllium (ppb) | 4/9/2014 | ND | | 4 | 4 | | Discharge from electrical, aerospace, and defense industries; erosion of natural deposits |
| Cadmium (ppb) | 4/9/2014 | ND | | 5 | 5 | | Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints |
| Chromium (ppb) | 4/9/2014 | ND | | 100 | 100 | | Discharge from pulp mills; erosion of natural deposits |
| Cyanide (ppb) | 4/9/2014 | ND | | 200 | 200 | | Discharge from metal factories; discharge from plastic and fertilizer factories |
| Mercury (ppb) | 4/9/2014 | ND | | 2 | 2 | | Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland |
| Nitrate (ppm) | 4/9/2014 | 3.0 | ND-2.1 | 10 | 10 | | Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits |
| Nitrite (ppm) | 4/9/2014 | 3.0 | ND | 1 | 1 | | Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits |
| Perchlorate | 8/15/2014 | 0.23J | ND | 2 | N/A | | Rocket propellants, fireworks, munitions, flares, blasting agents |

| Regulated Contaminant | Date(s) Collected | Highest Result or Highest Running Average Detected | Range Detected | MCL or MRDL | MCLG or MRDLG | Violation (Y/N) | Possible Source(s) of Contamination |
|---|---|---|---|---|---|---|---|
| Fluoride (ppm) ■ | 4/9/2014 | 0.37 | | 4 | 4 | | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| **Volatile Organic Contaminants** | | | | | | | |
| Benzene (ppb) | 4/9/2014 | ND | | 5 | 0 | | Discharge from factories; leaching from gas storage tanks and landfills |
| | | | | | | | |
| Carbon tetrachloride (ppb) | 4/9/2014 | ND | ND | 5 | 0 | | Discharge from chemical plants and other industrial activities |
| Chlorobenzene (ppb) | 4/9/2014 | ND | | 100 | 100 | | Discharge from and agricultural chemical factories |
| o-Dichlorobenzene (ppb) | 4/9/2014 | ND | | 600 | 600 | | Discharge from industrial chemical factories |
| p-Dichlorobenzene (ppb) | 4/9/2014 | ND | | 5 | 5 | | Discharge from industrial chemical factories |
| 1,2-Dichloroethane (ppb) | 4/9/2014 | ND | | 5 | 0 | | Discharge from industrial chemical factories |
| 1,1-Dichloroethylene (ppb) | 4/9/2014 | ND | | 7 | 7 | | Discharge from industrial chemical factories |
| cis-1,2-Dichloroethylene (ppb) | 4/9/2014 | ND | | 70 | 70 | | Breakdown product of trichloroethylene and tetrachloroethylene |
| trans-1,2-Dichloroethylene (ppb) | 4/9/2014 | ND | | 100 | 100 | | Discharge from industrial chemical factories |
| Dichloromethane (ppb) | 4/9/2014 | ND | | 5 | 0 | | Discharge from pharmaceutical and chemical factories |
| 1,2-Dichloropropane (ppb) | 4/9/2014 | ND | | 5 | 0 | | Discharge from industrial chemical factories |
| Ethylbenzene (ppb) | 4/9/2014 | ND | | 700 | 700 | | Leaks and spills from gasoline and petroleum storage tanks |
| MTBE - Methyl Tertiary Butyl Ether (ppb) | 4/9/2014 | ND | | ORSGL 70 | - | | Fuel additive; leaks and spills from gasoline storage tanks |
| Styrene (ppb) | 4/9/2014 | ND | | 100 | 100 | | Discharge from rubber and plastic factories; leaching from landfills |
| Tetrachloroethylene (PCE) (ppb) | 4/9/2014 | ND | | 5 | 0 | | Discharge from factories and dry cleaners; residual of vinyl-lined water mains |
| 1,2,4-Triclorobenzene (ppb) | 4/9/2014 | ND | | 70 | 70 | | Discharge from textile-finishing factories |
| 1,1,1-Trichloroethane (ppb) | 4/9/2014 | ND | | 200 | 200 | | Discharge from use in septic system cleaners |
| 1,1,2-Trichloroethane (ppb) | 4/9/2014 | ND | | 5 | 3 | | Discharge from industrial chemical factories |

| Regulated Contaminant | Date(s) Collected | Highest Result or Highest Running Average Detected | Range Detected | MCL or MRDL | MCLG or MRDLG | Violation (Y/N) | Possible Source(s) of Contamination |
|---|---|---|---|---|---|---|---|
| Trichloroethylene (TCE) (ppb) | 5/14/2013 | ND | | 5 | 0 | | Discharge from metal degreasing sites and other factories |
| Toluene (ppm) | 4/9/2014 | ND | | 1 | 1 | | Leaks and spills from gasoline and petroleum storage tanks; discharge from petroleum factories |
| Vinyl Chloride (ppb) | 4/9/2014 | ND | | 2 | 0 | | Leaching from PVC piping; discharge from plastics factories |
| Xylenes (ppm) | 4/9/2014 | ND | | 10 | 10 | | Leaks and spills from gasoline and petroleum storage tanks; discharge from petroleum factories; discharge from chemical factories |
| **Radioactive Contaminants** | | | | | | | |
| Gross Alpha (pCi/l) (minus uranium) | 5/3/2012 | 0.43 | | 15 | 0 | | Erosion of natural deposits |
| Radium 226 & 228 (pCi/L) (combined values) | 4/9/2014 | ND | | 5 | 0 | | Erosion of natural deposits |
| Uranium (ppb) | 4/9/2014 | 0.43 | | 30 | 0 | | Erosion of natural deposits |
| **Synthetic Organic Contaminants** | | | | | | | |
| 2,4-D (ppb) | 5/3/2012 | ND | | 70 | 70 | | Runoff from herbicide used on row crops |
| Acrylamide | 5/3/2012 | ND | | TT= 5% | 0 | | Added to water during sewage/wastewater treatment |
| Alachlor (ppb) | 5/3/2012 | ND | | 2 | 0 | | Runoff from herbicide used on row crops |
| Atrazine (ppb) | 5/3/2012 | ND | | 3 | 3 | | Runoff from herbicide used on row crops |
| Benzo(a)pyrene (ppt) | 5/3/2012 | ND | | 200 | 0 | | Leaching from linings of water storage tanks and distribution lines |
| Carbofuran (ppb) | 5/3/2012 | ND | | 40 | 40 | | Leaching of soil fumigant used on rice and alfalfa |
| Chlordane (ppb) | 5/3/2012 | ND | | 2 | 0 | | Residue of banned termiticide |
| Dalapon (ppb) | 5/3/2012 | ND | | 200 | 200 | | Runoff from herbicide used on rights of way |
| Di (2-ethylhexyl) adipate (ppb) | 5/3/2012 | ND | | 400 | 400 | | Discharge from chemical factories |
| Di (2-ethylhexyl) phthalate (ppb) | 5/3/2012 | ND | | 6 | 0 | | Discharge from rubber and chemical factories |
| Dibromochloropropane (DBCP) (ppt) | 5/3/2012 | ND | | 200 | 0 | | Runoff/leaching from soil fumigant used on soybeans, cotton, and orchards |
| Dinoseb (ppb) | 5/3/2012 | ND | | 7 | 7 | | Runoff from herbicide used on soybeans and vegetables |
| Endrin (ppb) | 5/3/2012 | ND | | 2 | 2 | | Residue of banned insecticide |

| Regulated Contaminant | Date(s) Collected | Highest Result or Highest Running Average Detected | Range Detected | MCL or MRDL | MCLG or MRDLG | Violation (Y/N) | Possible Source(s) of Contamination |
|---|---|---|---|---|---|---|---|
| Epichlorohydrin | 5/3/2012 | ND | | TT= 1% | 0 | | Discharge from industrial chemical factories; an impurity of some water treatment chemicals |
| Ethylene dibromide (EDB) (ppt) | 5/3/2012 | ND | | 20 | 0 | | Residue of leaded gasoline or runoff from soil fumigant used on tobacco or strawberries |
| Heptachlor (ppt) | 5/3/2012 | ND | | 400 | 0 | | Residue of banned pesticide |
| Heptachlor epoxide (ppt) | 5/3/2012 | ND | | 200 | 0 | | Breakdown of heptachlor |
| Hexachlorobenzene (ppb) | 5/3/2012 | ND | | 1 | 0 | | Discharge from metal refineries and agricultural chemical factories |
| Hexachlorocyclopentadiene (ppb) | 5/3/2012 | ND | | 50 | 50 | | Discharge from chemical factories |
| Lindane (ppt) | 5/3/2012 | ND | | 200 | 200 | | Runoff/leaching from insecticide used on cattle, lumber, gardens |
| Methoxychlor (ppb) | 5/3/2012 | ND | | 40 | 40 | | Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock |
| Oxamyl (Vydate) (ppb) | 5/3/2012 | ND | | 200 | 200 | | Runoff/leaching from insecticide used on apples, potatoes and tomatoes |
| Polychlorinated biphenyls (PCBs) (ppt) | 5/3/2012 | ND | | 500 | 0 | | Runoff from landfills; discharge of waste chemicals; residue of banned use in electrical transformers |
| Pentachlorophenol (ppb) | 5/3/2012 | ND | | 1 | 0 | | Discharge from wood preserving factories |
| Picloram (ppb) | 5/3/2012 | ND | | 500 | 500 | | Herbicide runoff |
| Simazine (ppb) | 5/3/2012 | ND | | 4 | 4 | | Herbicide runoff |
| Toxaphene (ppb) | 5/13/2012 | ND | | 3 | 0 | | Runoff/leaching from insecticide used on cotton and cattle |
| **Disinfectants and Disinfection By-Products** | | | | | | | |
| Total Trihalomethanes (TTHMs) (ppb) | 2/13/2014<br>8/15/2014<br>11/10/2014 | 1.10<br>6.40<br>0.00 | | 80 | ----- | | Byproduct of drinking water chlorination |
| Haloacetic Acids (HAA5) (ppb) | *2/13/2014*<br>*8/15/2014*<br>*11/10/2014* | 0.00<br>0.91<br>0.00 | | 60 | ----- | | Byproduct of drinking water disinfection |
| Chlorine (ppm)<br>(free, total or combined) | Monthly | 0.20 | | 4 | 4 | | Water additive used to control microbes |

■ Fluoride also has a secondary contaminant level (SMCL) of 2 ppm.

▲The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.

Unregulated contaminants are those for which there are no established drinking water standards. The purpose of unregulated contaminant monitoring is to assist regulatory agencies in determining their occurrence in drinking water and whether future regulation is warranted.

| Unregulated and Secondary Contaminants | Date(s) Collected | Result or Range Detected | Average Detected | SMCL | ORSG | Possible Source |
|---|---|---|---|---|---|---|
| **Inorganic Contaminants** | | | | | | |
| Sulfate (ppm) | 1/7/2013 | 22-27 | | 250 | ---- | Natural sources |
| **Organic Contaminants** | | | | | | |
| MTBE - Methyl Tertiary Butyl Ether (ppb) | 4/9/2014 | ND | | 20-40 | 70 | Fuel additive; leaks and spills from gasoline storage tanks |
| **Other Organic Contaminants - When detected at treatment plant as VOC residuals, not TTHM compliance** | | | | | | |
| Bromodichloromethane (ppb) | 4/9/2014 | ND | | --- | --- | By-product of drinking water chlorination |
| Bromoform (ppb) | 4/9/2014 | ND | | --- | --- | By-product of drinking water chlorination |
| Chloroform (ppb) | 4/9/2014 | ND | | --- | --- | By-product of drinking water chlorination |
| **Secondary Contaminants** | | | | | | |
| Iron (ppb) | 4/9/2014 | 0.054 | | 300 | --- | Naturally occurring, corrosion of cast iron pipes |
| Manganese (ppb) | 4/9/2014 | ND | | 50* | --- | Erosion of natural deposits |
| Aluminum (ppb) | 1/7/2013 | ND | | 200 | --- | Byproduct of treatment process |
| Chloride (ppm) | 1/7/2013 | 41-77 | | 250 | --- | Runoff from road de-icing, use of inorganic fertilizers, landfill leachates, septic tank effluents, animal feeds, industrial effluents, irrigation drainage, and seawater intrusion in coastal areas |
| Color (C.U.) | 1/7/2013 | 0 | | 15 | --- | Naturally occurring organic material |
| Copper (ppm) | 1/7/2013 | ND | | 1 | --- | Naturally occurring organic material |
| Odor (T.O.N.) | 1/7/2013 | 1-2 | | 3 TON | --- | Erosion of natural deposits; Leaching from wood preservatives0 |
| PH | 1/7/2013 | 6.9-9.3 | | 6.5-8.5 | --- | ----- |
| Silver (ppb) | 1/7/2013 | ND | | 100 | --- | Erosion of natural deposits |
| Total Dissolved Solids (TDS) (ppm) | 1/7/2013 | 180-2000 | | 500 | --- | Erosion of natural deposits. |
| Zinc (ppm) | 1/7/2013 | 0.0040 – 0.18 | | 5 | --- | Erosion of natural deposits, leaching from plumbing materials |

* The EPA has established a lifetime health advisory (HA) value of 300 ppb for manganese to protect against concerns of potential neurological effects, and a one-day and 10-day HA of 1000 ppb for acute exposure.

## 6. COMPLIANCE WITH DRINKING WATER REGS

**Does My Drinking Water Meet Current Health Standards?**

We are committed to providing you with the best water quality available. We did not collect lead and copper samples during September 2014. These samples will be collected in September of 2015 (NONCSA-CE-15-5D513)

Samples for Total Trihalomethanes (THM's) and Haloacetic Acids (HAA's) were not collected during the first week of May 2014. This was due to this year being the first year of us going to quarterly testing versus semi-annually. We have subsequently done our quarterly testing in August and November of 2014. (NON-CE-145D567)

Microscopic Particulate analysis (MPA) testing was not done in April of 2014 on Well #5 (06G), Rawson Street Well. This was completed in April 2015 and resulted in a Rick rating of Low. (NON-CE-145D567)

**Health Effects Statements**
Total Coliform: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

## 7. EDUCATIONAL INFORMATON

**Do I Need To Be Concerned About Certain Contaminants Detected In My Water?**
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Leicester Water Supply District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

## 8. ADDITIONAL INFORMATION

Preventing backflow is an important part of maintaining a healthy water supply. The Leicester Water Supply District's water distribution system is designed to carry water from the water treatment plant to the consumer. Cross connections, or connections between potable water in the distribution system to any non-potable water, exist. These connections make the water distribution system susceptible to backflow, which is the reversal of water flow from its intended direction. In other words, non-potable water could be introduced into the distribution system.

There are two types of backflow:

- **Backpressure backflow,** which occurs when the pressure outside the water distribution system exceeds the pressure within the system.
- **Backsiphonage,** which occurs when a partial vacuum is created in the system sucking non-potable water back into it.

Three Common Types of Backflow Prevention Devices for Irrigation Systems

Pressure Vacuum Breaker

Pressure Vacuum Breaker.
This device is approved for irrigation systems, however it is rarely used because of above ground installation and is subject to freezing during winter months. This device is also approved for chemical injection systems on sprinklers. Irrigation system can be turned off at 1 of 2 shut off handles.

Atmospheric Vacuum Breaker

Atmospheric Vacuum Breaker.
This device is commonly found on older sprinkler systems, but is not approved for new installations because it is non-testable. It must be replaced by a Double Check Valve when upgrading irrigation system. No shut off handles to isolate irrigation system.

Double Check Valve

Double Check Valve.
This is the most widely used backflow prevention device on sprinkler systems. It is installed below grade in a standard valve box. Irrigation system can be turned off at 1 of 2 shut off handles.

Simple Steps to Prevent Backflow:

- Guard against cross connections. A garden hose is a direct connection to the drinking water in the home. Don't attach chemical sprayers or leave a garden hose submerged in a swimming pool. (Hose Bibb Vacuum Breakers may also be installed on garden hoses)
- Make sure backflow prevention device is installed on your home sprinkler system. Common devices are Double Check Valve Assemblies and Pressure Vacuum Breakers.